

polymerizing on the member present in the gas-phase part of the reactor, and a continuous operation can be conducted over long. For example, acrylic acid was reacted with BuOH in the presence of p-toluenesulfonic acid and hydroquinone to give Bu acrylate.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 4 OF 52 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 2003:396830 CAPLUS

DOCUMENT NUMBER: 138:385915

TITLE: Method for producing (meth)acrylic acid esters of polyhydric alcohols

INVENTOR(S): Martin, Friedrich-Georg; Wartini, Alexander; Dernbach, Matthias; Schroeder, Juergen; Sirch, Tilman

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 41 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003042151	A1	20030522	WO 2002-EP12491	20021108
WO 2003042151	C1	20040624		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10156116 A1 20030626 DE 2001-10156116 20011115

PRIORITY APPLN. INFO.: DE 2001-10156116 A 20011115

OTHER SOURCE(S): MARPAT 138:385915

AB (Meth)acrylic acid esters of polyhydric alcs. are manufactured by reacting (meth)acrylic acid and the corresponding polyhydric alcs. in the presence of  $\geq 1$  acid catalyst and, optionally,  $\geq 1$  polymerization inhibitor and a solvent, whereby the polyhydric alc. contains  $< 500$  ppm HCHO. Thus, trimethylolpropane containing 282 ppm acetal-bound HCHO was esterified with acrylic acid in cyclohexane mixture containing p-MeOC<sub>6</sub>H<sub>4</sub>OH, H<sub>3</sub>PO<sub>2</sub>, CuCl<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> to give product having d. 1.1041 g/cm<sup>3</sup> and dynamic viscosity 85 mPa·s (23°), vs. d. 1.1153 g/cm<sup>3</sup> and dynamic viscosity 246 mPa·s for similar product prepared by use of trimethylolpropane containing 1400 ppm of acetal-bound HCHO.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 5 OF 52 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 2003:166982 CAPLUS

DOCUMENT NUMBER: 138:188258

TITLE: Preparation of 2-phenylethyl (meth)acrylate

INVENTOR(S): Doi, Junichi; Sonobe, Hiroshi; Matsumoto, Satoshi

L16 ANSWER 7 OF 52 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 6

ACCESSION NUMBER: 2002:845303 CAPLUS

DOCUMENT NUMBER: 137:338384

TITLE: **Esterification process** for the  
production of (meth)acrylate esters  
INVENTOR(S): Nestler, Gerhard; Geisendoerfer, Matthias  
PATENT ASSIGNEE(S): BASF AG, Germany  
SOURCE: Ger. Offen., 12 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10154714	A1	20021107	DE 2001-10154714	20011109
DE 10246869	A1	20030327	DE 2002-10246869	20021008
			DE 2001-10154714 A1	20011109

PRIORITY APPLN. INFO.:  
AB The production of (meth)acrylate esters (e.g., 2-ethylhexyl acrylate) by is achieved by acid-catalyzed **esterification** of (meth) **acrylic acids** (e.g., acrylic acid) with the appropriate **alc.** (e.g., 2-ethylhexanol) in a homogeneous liquid phase in the presence of a polymerization **inhibitor** (e.g., phenothiazine) and/or an **inhibitor** mixture, one accomplishes the **esterification** (stage 1) in a reaction zone, which is equipped with at least one distillation unit, over which one separates the reaction water as well as olefins, **alc.**, acetic acid esters and propionic acid ester, formed with the **esterification**, condensed and in an aqueous and an organic phase are separated, the discharge from the reaction zone from stage 1 is lead into a catalyst separation stage (stage 2) and into a **esterification** -catalyzed bottoms product and the (meth)acrylate esters head product is separated, from this (meth)acrylate ester-containing head product in a following stage the remaining (meth)acrylate ester-containing stream/current is separated into a light-boiling fraction (stage 4) and the (meth)acrylate ester essentially freed of acetic acid ester and output **alc.** recycled, from the released acetic acid ester and output **alc.** the (meth)acrylate ester made from stage 4 in a pure distillation (stage 6) separates from the high-boiling solvents and the high-boiling solvent-containing stream is subjected to a thermal and/or catalytic treatment.

L16 ANSWER 8 OF 52 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 7

ACCESSION NUMBER: 2002:403632 CAPLUS

DOCUMENT NUMBER: 136:402195

TITLE: **Transesterification process** for  
the production of higher alkyl (meth)acrylate esters  
from lower-alkyl (meth)acrylate esters  
INVENTOR(S): Nestler, Gerhard; Rauh, Ulrich; Schroeder, Juergen  
PATENT ASSIGNEE(S): BASF AG, Germany  
SOURCE: Ger. Offen., 12 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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